

Work Order ID 72827

Tuesday, August 16, 2011 9:13:14 AM

Item ID: D350-591-113

Revision ID:

Item Name: Heli-Access-Step, Short

Start Date: 8/16/2011 Start Qty: 10.00

Required Date: 8/26/2011 Req'd Qty: 10.00

Reference:

Approvals: Process Plan:

QC:

Sequence ID/
Work Center ID

Operation
Description

120 QC5- Inspect part complete



QC
Quality Control

Memo



130
Large Fab

Large Fab

Memo

1-Weld Fwd end
A/R AL RO
2-Grind end cap
3-Machine top w



140
QC
Quality Control

QC9- Inspect visual per QSI

Memo

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Approvals: Process Plan:

QC:

Date: 8/16/11

Date:

Accept



Tooling:

SPC (Y/N):

Cust Item ID:

Customer:

Setup Start

Stop

Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D2310	D
DSI 9525	A

100
DOCUMENT CONTROL

DC
Document Control

110
Large Fab

110
Large Fab

Memo

Photocopy bluefile & type labels per PPP D350-591-113

Memo

1-Cut D2244 extrusion to 62.00" long as per Dwg D2310
2-Drill extrusion as per Dwg D2310 using drill jig DT8230
3-Deburr

CHG005 8/17/11

(x10) 0

Ac 8/16/11

Dart Aerospace Ltd

W/O:		
DATE	STEP	

Part No: _____ PAR #: _____

Resolution: _____

NCR:		
DATE	STEP	Description of NC Section A

NOTE: Date & initial all entries

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

150

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

12.03.22 (10)

160

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

Ac 12.03.22 (10)

170

Large Fab

0.00



Large Fab

Memo

0.00

Large Fab

1-Rivet as per Dwg D2310
2-Inspect for foreign object as per QSI 024
3-Weld Aft end cap as per Dwg D2310
A/R AL ROD Batch: ~~12~~ 119785
4-Grind end cap welds flush

119785

Ac 12.03.24 (10)
12.03.24

Dart Aerospace Ltd

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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

180

QC10- Inspect visual per QSI004- ground welds

0.00



QC

Memo

0.00

8/26/28

Quality Control

190

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

8/26/28

Quality Control

H10

200

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

10X4 m-12/03/29

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
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Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

210

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00



Powdercoat

Memo

0.00

Powder Coating

START TIME:

11h55

OVEN TEMPERATURE:

320°F

m120222

FINISH TIME:

12h25

10 2 (DP) 12/03/29.

220

Wing Walk as per dwg QSI005 4.4 Batch

0.00



HandFinish

Memo

0.00

Hand Finishing

10X 2 M-L 12/03/29

230

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

10X 2 M 12/03/29

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start




QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
240  Packaging Packaging	Pick Kit Memo	0.00 0.00							
250  QC Quality Control	QC4- 100% Inspect kits for completeness Memo	0.00 0.00							
260  Packaging Packaging	PACKAGING RESOURCE #1 Memo Identify and pack for shipping as per PPP D350-591-113 Location: _____	0.00 0.00							

012-03-30

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Required Date: 8/26/2011 Req'd Qty: 10.00



Customer:

Reference:

Run Start



Approvals: Process Plan: Date: Tooling: Date:

Stop



QC: Date: SPC (Y/N): Date:

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

270

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

12/4/2 JF

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Picklist Print

Tuesday, August 16, 2011 9:13:21 AM

Page 1

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Parent Item: D350-591-113

Parent Item Name: Heli-Access-Step, Short



Start Date: 8/16/2011

Required Date: 8/26/2011

Start Qty: 10.00

Required Qty: 10.00

Comments: IPP Rev: H04.11.09 Reformat KJ/JLM
ECN10-586 10.06.18 DD verf: EC

IPP Rev: E as per

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2244-116

Manufactured No

110

Each

101.5000

1

10



Step Extrusion



Ae 12/02/21

Location

Loc Qty

Loc Code

HALL

91

60307

91

WA

10.5

60307

10.5

19

D2275

Manufactured No

130

Each

1.0000

1

10



Bushing



X10

12.03.14

Location

Loc Qty

Loc Code

WA015

1

27755

1

D2673-34

Manufactured No

130

Each

55.0000

2

20



End Plate



12.03.14

Location

Loc Qty

Loc Code

WA

35

69534

35

WA015

20

59690

20

20

Dart Aerospace Ltd

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Page 2

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Parent Item Name: Heli-Access-Step, Short

Start Date: 8/16/2011

Required Date: 8/26/2011

Start Qty: 10.00

Required Qty: 10.00

D2582 Manufactured No

170 Each

3.0000

1 10



Step Leg Assembly



B72828 (x2)
B77001 (x5)

Ac 12.03.23

Location

Loc Qty

Loc Code

WA

3

72739

3

(x3)

MS20600-AD4W3

Purchased

No

170

Each

543.0000

16

160



Cherry Rivets



M120308 (x160) Ac 12.03.23

Location

Loc Qty

Loc Code

ST321

410

111636

48

117505

327

117601

35

WA018

133

107939

133

K591-113

Manufactured

No

240

Each

0.0000

1 10



Short Step Instln Kit

CH167005



B72033 12/3/30 f (100)

Tuesday, August 16, 2011 9:13:21 AM

Shop Packet Print

Page 2

Dart Aerospace Ltd

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DESIGN KE	DRAWN BY PH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. D2310	REV. D SHEET 1 OF 2
DATE 05.11.14		TITLE HIGH SHORT STEP ASSEMBLY	SCALE NTS
A	94.11.10	NEW ISSUE	
B	97.05.22	END CAPS CHANGED	
C	97.07.23	ADDED BUSHING AND FACING INFO	
D	05.11.14	UPDATE FINISHING NOTE	

D2310 HIGH SHORT STEP ASSEMBLY PARTS LIST

Part No.	Description	QTY
D2310	High Short Step Assembly	X
D2244-62.0	STEP EXTRUSION*	1
D2275	BUSHING	1
D2582	STEP LEG ASSEMBLY	1
D2673-34	STEP END PLATE	2
MS20600AD4W3	Rivets	16

*cut per drawing

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 12827

11-08-16

RELEASED
05.11.28 [Signature]

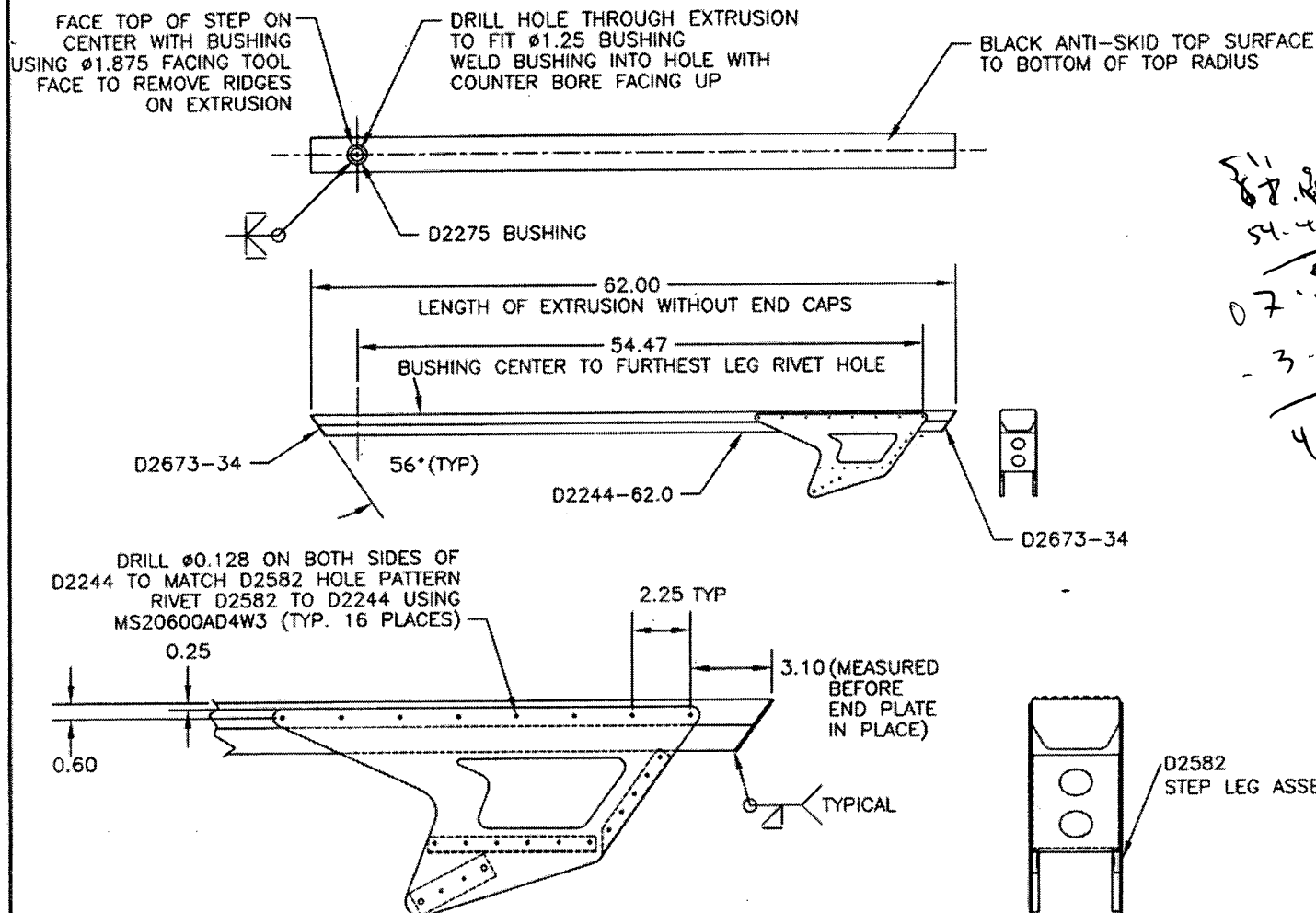
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DESIGN	KE	DRAWN BY	PH	DART AEROSPACE LTD
CHECKED		APPROVED		HAWKESBURY, ONTARIO, CANADA
DATE	05.11.14	DRAWING NO.	D2310	REV. D
		TITLE	HIGH SHORT STEP ASSEMBLY	SHEET 2 OF 2
		SCALE	NTS	

51.10
54.47
07.53
3.10
4.43



STEP LEG DETAIL

D2310 HIGH SHORT STEP ASSEMBLY

- 1) MAKE FROM D2244 STEP EXTRUSION
- 2) WELD PER DART QSI 004
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

RELEASED
05.11.28

